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## Comparing communication style within project teams of three project-oriented organizations in Iran

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### Abstract

If we consider project as a temporary organization, based on the Organizational theory we can also consider it as a human community. In this regard and with attention to major sociologists' confirmation, communication plays very important role in any human community and with the same importance in projects with multicultural context. In this framework and using descriptive-analytical method, this research tries to analyze and compare communication style in two project teams from any three selected project-oriented organizations in Iran. Thus after some interviews, in order to determine team members' communication styles a questionnaire was designed and distributed between two project team members that one of them had been known as high performance team and another as a low performance from CEO point of view, based on performance indexes that previously generated by corporates. Then achieved data analyzed by Excel and SPSS. The main result indicates that probably there is a correlation between communication style arrangement of team members and project team performance. Teams that had been formed by all kind of communication style peoples, with suitable arrangement commonly had better performance than other teams that had been formed by same communication style peoples. In another word in first kind of teams, team member complete each other and create better communication network than second one. However this result needs more empirical and theoretical study. It is believed that this study can prepare context for future research in order to improve communication among project teams to obtain high performance.

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## 1. Introduction

In modern disturbed world, Communication has been considered as a heart of project management (Kerzner, 2009). This reality was emphasized when project had been considered as a temporary organization. It's because as majority of sociologists have addressed, communication plays very important role in coordination and integration of any society such as organizational society. In level of program and portfolio we can see the footmark of communication as a one of the most important element, for example in level of portfolio, effective communication is a vital function in order to management of risk, resource and stakeholders (PMI, 2013). Chaster Bernard in his interesting book, (*The Function of the Executive*) emphasized that communication is the primary task of any executive, and communication with employees regarding their concerns, problems, ideas, and suggestions about the organization is the critical skill of managing. Also he believed that in the exhaustive theory of organization, communication would occupy a central place, because the structure, extensiveness, and scope of organization are almost entirely determined by communication techniques (Henderson, 2004). Also John Naisbitt believed that "future competition will be managerial competition, and the focus of competition among organization will be effective communication among the member of the organization and with external organizations" (Tai, Wang, & Anumba, 2008). From another perspective, In new word that organization and team members from different cultural background work together, partnering has been presented as one of the most suitable approach for dominate the new practical shortcoming (Florice, Bonneau, Aubry, & Sergi, 2014), thus communication can plays very important role, because without effective communication we can't achieve effective partnering (Tam, Shen, Yau, & Tam, 2006; Tai, Wang, & Anumba, 2008; EL-Saboni, Aouad, & Sabuni, 2005; Adnan, Shamsuddin, Supardi, & Ahmad, 2012).

In next sections we review previous research about important of communication in different area of project management especially in multicultural condition of Iran society, after that we provide some explain about communication style model and our approach in this research to this special concept, we also provide research methodology and some information about selected cases, then using descriptive-analytical approach, we try to analyze communication style arrangement of two project teams from any three selected project-oriented organization in Iran, that one of them has been known as high performance and another as a low performance team from CEO point of view and performance indexes that previously generated by corporates, and in final we discuss about results and provide some area of research for further studies in the future.

## 2. Importance of communication in different area of project management

Accomplished researches show that different area of project management is widely affected by the communication framework. For example in area of human resource management (HRM) Peter Drucker considered Human Relations and communication to be important parts of a foundation for future development of the basic principles for managing work and workers (Bredin & Soderlund, 2011). Also in area of Knowledge management, there is interdependence between shared knowledge within transnational project on the one hand, and communication and coordination on the other. Research showed in most complex word, failures to create shared knowledge in the initial phase of transnational project had consequences on the effectiveness of communication and coordination in transnational project. Also when communication and interaction were not encouraged and required, coordination for shared knowledge was not developed over time within the project team (Adenfelt, 2009). communication also plays very important role, but with some difference in virtual teams, when we pay close attention to virtual project team we confront with two kind of communication problem: inadequate communication and technological problem hindering communication, the first appears to be a key risk on project of both type (virtual and non-virtual projects) but the second one does not appear to be a key risk for either type of project. kind of communication that happen in virtual team often have been seen insufficient, because of its inability to transfer certain type of implicit knowledge or expertise successfully via electronic communication method or in another word without face-to-face communication (Reed & Knight, 2009; Adenfelt, 2009). Frequency of communication has a great influence on trust and interdependence among team member, and we know that improving in these two factors finally lead to achieve high level performance team in different dimensions, especially in area of knowledge transfer (Park & Lee, 2013). In area of leadership, the chosen style of communication base on the various factors will differ from leader to leader and from project to project, but communication with people remains an intrinsic part of

leadership (Zulch, 2014). Result of another study shows that in order to achieve better environmental performance, it is vital to collect response from various project participants specially: clients, consultants, contractors, and various subcontractors to build up collaboration. It is important to pay attention that Effective of this collaboration is largely based on communication among various parties (Tam, Shen, Yau, & Tam, 2006). Another research indicates the influence of National Culture (NC) on project management and specially project planning, in compare of Arab and British NC the important role of communication has been shown in planning stage for poly chronic culture like Arab country (Caldwell & Pinnington, 2012). The above mentioned researches make it possible for us to clearly tracking the influence of communication in different area of project management. And it is provable from these researches that not only communication affects different area of project management but also it is affected by wide spectrum of variable from cultural to individual, and there are also different kind of intermediate variables, that all lead to communication analysis be a very difficult kind of analysis. In this research we will focus on individual aspect of communication analysis.

### **3. Future multicultural context of Iran and importance of communication**

Communication issues in Iran can be very important, especially in area of partnering procurement in different kind of construction project as an innovative and non-confrontational relationship-based approach to the procurement (MohammadHasanzadeh, Hosseinalipour, & Hafezi, 2014) Multicultural teams are particularly susceptible to communications problems that can affect team cohesion (Ochieng & Price, 2010). Therefore communication analyze is important for human resource management and effective team building in multicultural context of Iran. Iranian society made up of different religious (Christians, Sunnis, shia and etc.) and ethnics (Kurd, Arab, Baluch, turkoman, Azari and etc) minorities. and in recent years new kind of work force with different nationalities immigrate for work and inhabit from neighbourhood country such as Afghanistan, Tajikistan, Turkmenistan, Azerbaijan, Iraq and etc. This phenomenon increases cultural diversity of Iran community, especially in Big cities. It is expected in near future; decrease tension between Iran and western country led to economic recovery and accelerate immigration from neighbourhood country. Therefore in order to build high performance team, communicational problem and communicational style diversity of team members would occupy central place of any future research. In this regard we try to investigate the influence of communication style arrangement of team members on project team performance.

### **4. Communication style model**

Communication style refers to the whole show of characteristic features of communicative act of a person. Attitude, communication patterns and temperament are the three fundamental elements that determine the style of communication (urea & Muscalu, 2012). We can pursue the qualitative and quantitative measures of communication among project team in personal attribute of members. One dimension of any person is the preferred communication style. (Reece & Brandt, 2005) there is previous research about the relationship between the communication style and learning performance that results, confirm relationship, with intermediate role of collaborative social network, but in that study authors consider communication style as willing to communication (WTC). (Cho, Gay, Davidson, & Ingraffea, 2005) in this research we try to investigate the relationship between communication style of project team member and team performance, There are various definition of communication style and various reference presented different kind of communication style based on the area of study. Some divided it to 5 kind (narrowly biomedical-expanded biomedical-biopsychosocial-psycho-social-consumerist) (van Dillen, Hiddink, Koelen, Graaf, & van Woerkum, 2005), and another to 9 kind (Animated -Attentive -Contentious-Dominant-Dramatic-Friendly-Impression-leaving-Open-communication-Relaxed) (Kang & Hyun, 2011). But in this research we establish our study base on the B.L.Reece and R.Brandt communication style model (Fig.1). First of all we introduce two important dimension of human behavior: dominance and sociability. (Reece & Brandt, 2005, pp. 60,61).

#### 4.1. Dominance continuum

Dominance can be defined as the tendency to display a “take-charge” attitude. Every person falls somewhere on the dominance continuum. David w. Johnson states that people tend to fall into two dominance categories: low or high. Low dominance people are characterized by a tendency to be cooperative and eager to assist other. They tend to be low in assertiveness and are more willing to be controlled by others. High dominance people give advice freely and frequently initiate demands. They are more assertive and tend to seek control over other.

#### 4.2. Sociability Continuum

People who high in sociability usually express their feeling freely, whereas people lows on the continuum tend to control their feeling. High sociability person is open and talkative and like personal association. Whereas low sociability person is more reserved and formal in social relationship.

#### 4.3. Communication style

Using communication style model we can identify most preferred style of project team. Dominance is represented by the horizontal axis and sociability by the vertical axis. So model divided into 4 zones, each representing one of four communication style: supportive, reflective, director or emotive (Reece & Brandt, 2005).

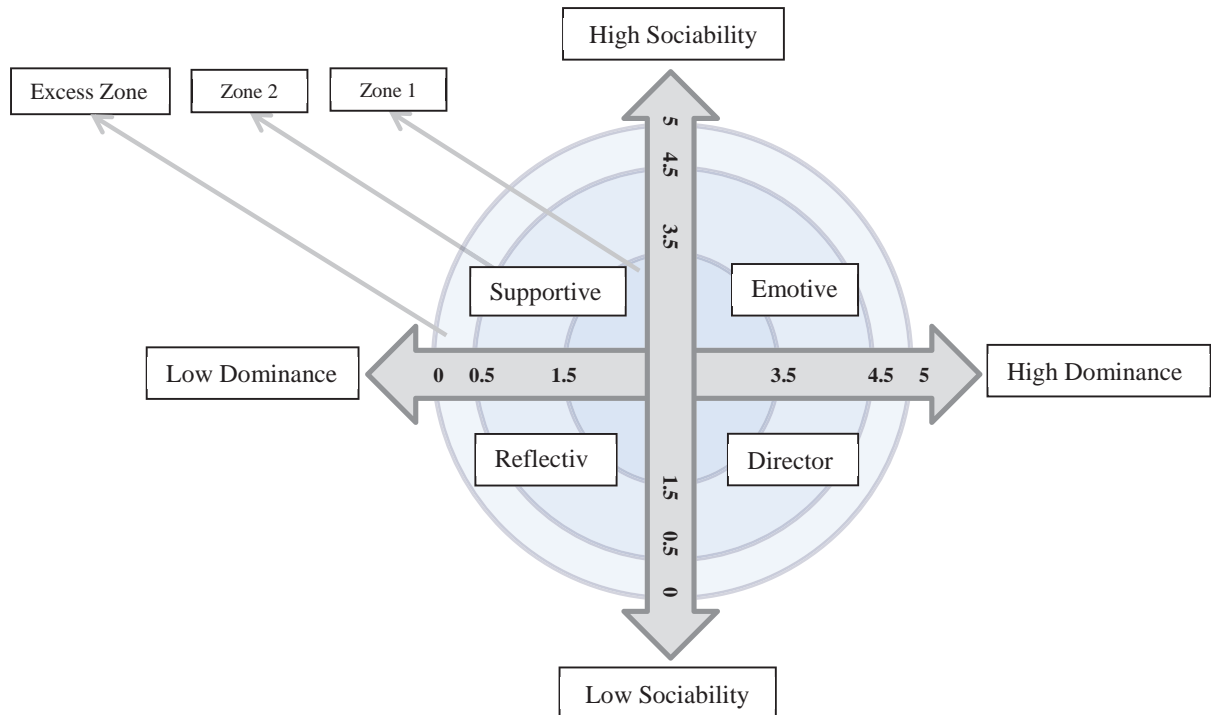


Figure 1: communication style model (Reece & Brandt, 2005).

##### 4.3.1 Supportive Style

Upper-left-hand quadrant: low dominance-high sociability. Some Behavior of supportive style person including: Listens attentively, avoid the use of power, Make and express decisions in a thoughtful, deliberate manner.

#### 4.3.2 Reflective style

Lower-left-hand quadrant: low dominance-low sociability. Some Behavior of reflective style person including: expresses opinion in a discipline and deliberate manner, seems to be preoccupied, Prefers orderliness.

#### 4.3.3 Director style

Lower-right-hand quadrant: high dominance-low sociability. Some Behavior of director style person including: projects a serious attitude, expresses strong opinions, may project indifference.

#### 4.3.4 Emotive style

Upper-right-hand quadrant: high dominance-high sociability. Some behavior of emotive style person including: displays spontaneous, uninhibited behavior, displays the personality dimension described as extroversion, possesses natural persuasiveness.

#### 4.4. *Communication style intensity*

Communication styles intensity is also different; therefore we can divide the model base on intensity zone: people in zone 1 commonly display their behavioral characteristics with less intensity than people in zone 2. In another word it is more difficult to identify preferred communication style of people in zone 1. But people in zone 2 commonly display their behavioral characteristic with greater intensity than those in zone 1. People in Excess zone commonly display their behavioral characteristics with high degree of intensity and rigidity. When people occupy this zone, they become inflexible and display lack of versatility. This compartmentation should not be considered as a permanent barrier. Under certain condition, people will abandon their preferred style temporarily (Reece & Brandt, 2005).

### 5. Research methodology

In order to enhance our understanding about how team members' communication style can influence the overall performance of project a case-study approach is adopted to examine communication style model in project team from 3 project-oriented organizations in Iran. organizations selected process happened base on the 2 criteria: 1-selected organization should be great organization with various project team that provide for us a suitable power of choice that finally lead to high degree of comparability. 2-selected organization should be kind of organization that their data be accessible at least for two teams that we'll select. Case study research provides it possible for us to use several data collection means. In this regard, first we collected data about the different performance dimension of any project using a semi-structured-interview and reviewing project and corporate documents, then we used questionnaire in order to get data from team members. Thus questionnaire was designed base on the communication style model that has been discussed. It included two main sections: first section contain dominance indicators and second sociability indicators of human behavior dimensions (Table 1). And any section not only asked question about their respondents but also asked them to respond the same question about Teammates. Thus it provided it possible for us to judge about communication style model of any person using average of data that collected from him/her and some other team members. And last collected data had been analyzed by Excel and SPSS as follow:

Part1: in first step we determined the mean of collected indexes score of dominance and sociability dimensions for any member of project teams by Excel, and based on this two dimensions we determined communication style of any person. In this regard we considered zone 2 and excess zone as the acceptable area in communication style model and zone 1 was considered indistinctive. That's because identify preferred communication style of people in zone 1 as discuss above is blur (fig.1). in second step we tried to discuss about arrangement of communication style in any teams and interpreted its relationship with performance.

Part2: also study the factors that have influence on communication style of persons would be very important for project manager in order to build coherent team; therefore we tried to investigate the relationship between age of team members and two dimension of communication style model (Dominance and sociability) by SPSS and using spearman correlation coefficient as a non-parametric test.

Table 1: Human behaviour dimensions (Reece &amp; Brandt, 2005)

Sociability indicators		Dominance indicators	
Easygoing	Disciplined	Competitive	Cooperative
Expressive	Controlled	Authoritative	Submissive
Lighthearted	Serious	Domineering	Accommodating
Unstructured	Methodical	Decisive	Hesitant
Spontaneous	Calculating	Outgoing	Reserved
Open	Guarded	Insistent	Compromising
Extroverted	Introverted	Risk taking	Cautious
Friendly	Aloof	Hurried	Patient
Casual	Formal	Influential	Passive
Provocative	Reserved	Talkative	Quiet
Carefree	Cautious	Bold	Shy
Unconventional	Conforming	Demanding	Supportive
Dramatic	Self-controlled	Intense	Relaxed
Impulsive	Restrained	Assertive	Restrained

## 6. Projects Specification

As shown in Table 2 all projects are approximately similar to each other especially in term of delivery system and client. From methodological point of view it brought with itself some weaknesses and advantages. It decreased our study generalizability and limited its results But at the same time, one of the most important advantages that it added to our research, is that helped us to eliminate mediator variable that could affect our final results, thus led to enhance the reliability of the research. However certain dissimilitude exist yet, that should be considered. Another important issue that should be mentioned is that every company has his own performance evaluation procedure but fortunately it can't hurt our research results because both high and low performance project of any company were evaluated by performance evaluation procedure that included key performance indexes as evaluation criteria, however any company contemplated different importance for any criteria.

Table 2: Selected project information, H: High performance, L: Low performance

Attributes	Company A		Company B		Company C	
	H-Project	L-Project	H-Project	L-Project	H-Project	L-Project
Building Type	Thermal power plant	Hydro power plant	oil refinery	Combined cycle power plant	Dam project	Dam project
Delivery System	EPC	EPC	EPC	EPC	EPC	EPC
Schedule Duration	5 years	6.5years	2.8 years	4 years	4.8 years	7 years
Client	Public-private	public	public	private	public	public

## 7. Discussion

After determining communication style of all team members, we determine the communication style arrangement of any team as shown in table 3 and fig.2. Communication style arrangements of two from three high performance teams (P-1, P-5) have a similarity to each other. Bothe teams communication arrangement include all communication style (Supportive, Emotive, Reflective, Director) and with approximately equal proportion. In versus all three low performance teams (P-2, P-4, P-6) have a unequal proportion of any communication style and in order, P-4 and P-6 have not “reflective” and “director” communication style persons.

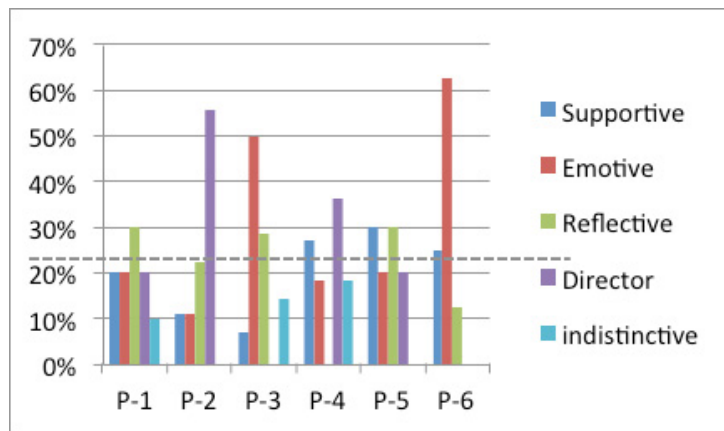


Fig. 2 Communication style of team members

Table 3: performance and communication style of each project, H: High performance, L: Low performance

Company	Number of project	Number of team member	performance					
			Cost	Time	Quality	safety	Environmental	Total
A	P-1	10	L	H	L	H	H	H
	P-2	9	L	L	H	L	H	L
B	P-3	14	H	H	H	L	H	H
	P-4	11	L	L	L	H	L	L
C	P-5	10	H	H	H	L	L	H
	P-6	8	H	L	L	L	H	L

Company	Communication style									
	Supportive		Emotive		Reflective		Director		Indistinctive	
	Percent	Number of Person	Percent	Number of Person	Percent	Number of Person	Percent	Number of Person	Percent	Number of Person
A	20%	2	20%	2	30%	3	20%	2	10%	1
	11.11%	1	11.11%	1	22.22%	2	55.55%	5	0%	0
B	7.14%	1	49.98%	7	28.57%	4	0%	0	14.28%	2
	27.27%	3	18.18%	2	0%	0	36.36%	4	18.18%	2
C	30%	3	20%	2	30%	3	20%	2	0%	0
	25%	2	62.5%	5	12.5%	1	0%	0	0%	0

Also we can see similar situation in P-3 as a high performance project. Therefore we can state probably there is dependence between communication style arrangement of project team members and total performance of project. Teams that contain all communication style and with approximately equal proportion show better performance than other teams. We also tried to investigate more about the P-3 as an incompatible case with research results, as shown in table 3 this team has most number of members among other selected teams (14 members). Therefore achieving high degree of coordination and integration in this special team typically should be difficult but our interviews with team members and corporate authorities show that this team has very popular and skilled leader, it seems that coordination in this special team mainly is created and improved by its leader that finally lead to achieve high performance. However more reliable result about this special team needs more research because there are probably other important factors that should be considered such as previous familiarity of team members with each other because of their previous experience of working together that help them to reach a suitable coordination.

It seems from achieved results that, different communication style complete each other. Thus existence of peoples with different communication styles within project team probably help them to communicate with each other effectively; intention of effective communication is, participants' ability for achieve a stable optimized agreement in shortest possible time in their communication actions. In this situation as Jurgen Habermas has emphasized in his



interesting book: communication action theory (1981) participants try to reach an agreement instead overcome each other. Thus communication in such condition has coordination role in most effective way among team members. In another word in new approach to project team, centralized power has been replaced with communication. It is important because traditionally, centralized power had coordinator role in project teams by establishing a communication bottleneck but in new approach communication flows freely between all project team members. However it is not possible and reasonable to eliminate power from relationship between participants but it is possible in complex project with multicultural context in order to achieve high performance team, communication context So be prepared that lead to balanced distribution of power among team members base on their communication styles, Which ultimately lead to effective participation of the team members (Badir, Buchel, & Tucci, 2012). Therefore project manager alongside attention to expertise and capabilities of team members should consider team members' behavioral aspects especially team members' communication styles. It could widely affect project team performance, because effective communication enhances interdependence and trust between members (Park & Lee, 2013) and motivates them in suitable way.

Also study the factors that have influence on two dimension of communication style model would be very important for project manager in order to build a coherent team, in this research with attention to interview with team members and review research literature, from different possible factors that probably effect on communication style of team members we study the relationship between age and two dimension of communication style (Dominance and sociability). We hypothesized the correlation between age and two dimensions of communication style as two separated hypothesis, in this regard the results of testing achieved data show that there is a negative correlation between age and dominance behavior of team members with -0.548 correlation coefficient and 0.00 significance level. But we can't find any meaning correlation between age and sociability dimension of person so the second hypothesize failed. This result can provide this ability for us to achieve better team arrangement (Table 4).

Table 4: correlation coefficient between age and Dominance\_Mean\_Index and Sociability\_Mean\_Index  
 \*\*. Correlation is significant at the 0.01 level (2-tailed).

			Age
Spearman's rho	Dominance_Mean_Index	Correlation Coefficient	-.548**
		Sig. (2-tailed)	.000
		N	62
	Sociability_Mean_Index	Correlation Coefficient	.028
		Sig. (2-tailed)	.830
		N	62

## 8. Conclusion

Evidences from previous researches have provided the importance of Communication in different area of project management such as: human resource management (HRM), knowledge management, virtual team coordination, trust building between team member, leadership, stakeholders management, and very important role that communication style as a one of the most important factor of national culture (NC) plays in all function of project management specially planning. also previous research emphasized on communication in order to achieve effective partnering (Pryke, 2012, pp. 39,43). Partnering as a one of the most growing approach in construction project in Iran over the last decade is tacking all attention to itself and procurement partnering extended to all kind of construction project (MohammadHasanzadeh, Hosseinalipour, & Hafezi, 2014). Therefore this research builds on the previous research as first attempt in project management to investigate the relation between communication style arrangement of project team members and team performance. In order to achieve in-depth understanding, we adopted case study approach with descriptive-analytical method for this research; in this regard we selected two project teams from three project-oriented organizations in Iran that first has been known as high performance and second as low



performance from the CEO point of view based on the previous provided indexes by the organization. Then we tried to determine communication style of each members of team by use of questionnaire that asks respondents to response not only about him but also about other team members. In final we determine and analyzed communication style arrangement of any team.

Achieved results show that two teams from three high performance teams have all communication style persons with approximately equal proportion and all three low performance teams have completely unequal proportion of any communication style. Therefore we can state probably there is dependence between communication style arrangement of project team members and total performance of project, in another word teams that contain all communication style and with approximately equal proportion show better performance than other teams. However this research can't positively assert this dependence because it is impossible for us to eliminate other effective factors on performance, and we also didn't statistically test this relationship but it can provide suitable signing for probability existence of this dependence. this study in order to provide practical mechanism for project manager to build coherent team also show the negative correlation between age and dominance dimension of team members, from team member point of view older team members show lower dominance behavior than younger, it probably drives from their experiences.

## 9. Further research

We think this subject requires more empirical studies in order to make a comprehensive analysis. First step would be eliminating other effective factors on performance. However it would be difficult to provide exact definition of word performance but definitely, any definition should consider different dimensions of performance such as time, cost, quality, safety environment and etc. We also propose, the results of this research be tested with other communication style models, however different communication style models are similar to each other but such tests can provide more reliable results. Also it would be interesting subject for future research to investigate the role of various factors, such as organization position, project situation, and time passage on change pattern of communicational Style, especially for those peoples who are located outside the zone 2. Also investigate about the change of communication arrangement pattern in high and low performance project teams in time passage would be very important issue for future research in order to know about the formation process of effective communication patterns.

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